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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/976,340 | 10/12/2001 | Lilla Boroczky | US 010005 | 2362 |

24737 7590 12/01/2004

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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| EXAMINER |
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PATEL, KANJIBHAI B

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| ART UNIT | PAPER NUMBER |
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2625

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,340

Applicant(s)

BOROCZKY ET AL.

Examiner

Kanji Patel

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 2, 7, 14, 17-20, 23-26, 29-38, 40, 41, 44 and 45 is/are allowed.
- 6) ☒ Claim(s) 42 and 43 is/are rejected.
- 7) ☒ Claim(s) 3-6, 8-13, 15-16, 21-22, 27-28 AND 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/8/2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/12/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Drawings filed on 1/8/02 have been approved by the examiner.

Specification

2. Page 6, under the heading of the Brief Description of the Drawings, lines 3 and 5, insert --. -- at the end of the lines.

Claim objections

3. **Claims 3-6, 8-13, 15-16, 21-22, 27-28 and 39** are objected to because of the following informalities:

For claims 3-6, 8-13, 15-16 and 27-28, insert --. -- at the end of the limitation.

For claim 21, line 1, change "22" to -- 20 --.

For claim 22, line 1, change "the" to -- an --.

For claim 39, line 1, change "method" to -- system --.

Appropriate correction is required.

4. **Claim Rejections 35 USC § 101**

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 42 and 43 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 42 is drawn to a means. Means do not fall into any of the statutory classes of invention, and is therefore considered non-statutory. To avoid this rejection, it is

suggested that the preamble of the claim be amended.

Claim 43 is drawn to a signal. A signal does not fall into any of the statutory classes of invention, and is therefore considered non-statutory. To avoid this rejection, it is suggested that the preamble of the claim be amended.

Allowable Subject Matter

5. The following is a statement of reasons for the indication of allowable subject matter:

Claims 1-2, 7, 14, 17-20, 23-26, 29-38, 40-41 and 44-45 are allowed.

For independent claim 1, the prior art on record fails to teach or suggest, singly or in combination for enhancing image quality, comprising, among other things, applying the usefulness metric to at least one sharpness enhancement algorithm, the usefulness metric and the sharpness enhancement algorithm being separate such that the usefulness metric can be used with a variety of algorithms.

For independent claim 2, the prior art on record fails to teach or suggest, singly or in combination for enhancing the sharpness of a coded digital video, comprising, among other things, based upon the coding complexity, developing a usefulness metric for the coded video, which identifies a limit to sharpness enhancement that can be applied to the coded video after it is decoded, without enhancing coding artifacts and applying a sharpness enhancement algorithm to the decoded video to increase sharpness within the limit prescribed by the usefulness metric. **Claims 23 and 41** are representative of claim 2.

For independent claim 20, the prior art on record fails to teach or suggest, singly

or in combination for image quality enhancement, comprising, among other things, a plurality of pixel based control blocks, operating in parallel on the decoded luminance signal, each calculating a maximum allowable gain factor, based upon a characteristic of the luminance signal, wherein at least one control block is a coding gain block implements a usefulness metric which determines the allowable amount of a dynamic gain control for selecting a minimum gain based upon the calculated maximum gain factors, a multiplier for multiplying the high pass signal by the minimum gain generating a multiplied signal. **Claims 44-45** are representative of claim 20.

Claims 3-6, 8-13, 15-16, 21-22, 27-28 and 39 would be allowable if they are amended or corrected to overcome the objections set forth in this Office action.

Other prior art cited

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Song (US 5,038, 388) discloses a method for adaptively sharpening electronic images.

Gallagher et al. (US 6,580,835 B1) disclose a method for enhancing the edge contrast of a digital image.

Mancuso et al. (US 6,600,839 B2) disclose a non-linear adaptive image filter for filtering noise such as blocking artifacts.

Fogg (US 6,466,624 B1) disclose a video decoder with bit stream based enhancements.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kanji Patel whose telephone number is (703) 305-4011. The examiner can normally be reached on Monday to Thursday from 8:00 a.m. to 6:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kanji Patel
Art Unit 26 25
11/26/04


KANJIBHAI PATEL
PRIMARY EXAMINER